

Message

From: MacNicholl, Peter@DTSC [Peter.MacNicholl@dtsc.ca.gov]
Sent: 6/26/2018 5:29:02 PM
To: MacDonald, Alex@Waterboards [Alex.MacDonald@waterboards.ca.gov]; Fennessy, Christopher (christopher.fennessy@Rocket.com) (christopher.fennessy@Rocket.com) [christopher.fennessy@Rocket.com]; Keller, Lynn [Keller.Lynn@epa.gov]
CC: Hanley, Valerie@DTSC [Valerie.Hanley@dtsc.ca.gov]
Subject: Re: Area 40 RAP - Cleanup Standards Table

Thanks for the feedback Alex.

DTSC cannot rely solely on vapor mitigation for human health protection, we have to assume worst case scenario...Failure of vapor mitigation system (active or passive) and the health risk that exists due to the short term health effects for exposure to TCE.

Yes your point on #1 is correct. We want to sufficiently reduce those concentrations near the source areas so residuals in outdoor air and those subsurface levels dissipate to concentrations below 16 ug/m3 TCE near (buffer area next to houses?) to where those residences are planning to be constructed. This standard may not be achieved in the open space for quite some time but this shouldn't matter as this land use it thought to remain indefinitely, even if unrestricted use levels are eventually achieved in the open space. This does mean that if those levels are sufficiently reduced to unrestricted use levels perhaps there is not a need for vapor mitigation for those areas to the north (due to ambient air and subsurface vapor levels)and perhaps eventually for structures in the park & open space. But those determinations will be made once the merits of the cleanup are made and supported by long-term monitoring data.

Valerie and I can discuss the other cleanup standards for specific exposure routes for those of the commercial worker and recreator again.

DTSC will only support cleanup standards that meet a 1×10^{-6} cumulative risk under the appropriate use scenarios to remain protective of human health.

-Pete

From: MacDonald, Alex@Waterboards <Alex.MacDonald@waterboards.ca.gov>
Sent: Tuesday, June 26, 2018 9:05 AM
To: MacNicholl, Peter@DTSC; Fennessy, Christopher (christopher.fennessy@Rocket.com) (christopher.fennessy@Rocket.com); Keller, Lynn (Keller.Lynn@epa.gov)
Cc: Hanley, Valerie@DTSC
Subject: RE: Area 40 RAP - Cleanup Standards Table

Peter: I do have some issues with the proposed modifications to the cleanup standards drafted by Aerojet Rocketdyne as follows based on your numbered items:

1. I am not sure if I am understanding this correctly, but are we saying that the cleanup standard will be such that no vapor mitigation system will be needed? If so, why is there a requirement to have a vapor mitigation system? This is contrary to what EPA has presented on this site from Dan Stralka. If the

listed modified standard is being used, are we going to state that residences will be allowed as proposed as long as vapor mitigation is provided until the concentrations are below those that would prohibit residences even with vapor mitigation? The remedy does not propose to actively remediate those concentrations in the area exceeding 16 µg/m³ that is proposed for residences but relies on removal near the source area to sufficiently reduce the concentrations in outdoor air and for natural attenuation of the residuals to eventually dissipate the concentration to below levels of concern (16 µg/m³ for TCE). If the proposed lowered standard is kept, then this all needs to be explained. Otherwise I would think the public would assume that there will be no residences until the concentrations are below 16 µg/m³ in the subsurface. Similar comment and questions regarding the commercial buildings in the park area.

2. I do not think we need to remove the values for construction worker. This table should be a summary from the Risk Assessment where it stated that concentrations exceeded values for protection of construction workers. The initial table shows that the remedy will protect construction workers – better to show that they are protected than argue why there need not be any values for their protection.
3. Likewise for the recreator. The Risk Assessment evaluated the recreator and showed that concentrations of pollutants exceed values for protection of the recreator. Those were not the same values as the recreation worker as the exposure scenarios were different. Same essential issue as the construction worker – better to show what values are needed to protect the recreator and show how the remedy achieves that.
4. We have informed the public at several meetings now that we are going to 1x10⁻⁶ incremental cancer risk values for the pollutants on Area 40. I do not believe we should change that now. This was not a product of the risk assessment. Any backtracking will provide more justification for the public to distrust the proposal.
5. I have some questions on the proposed values in the table. The values used in the Commercial columns are the same as the original, with the exception of soil vapor to indoor air (changed based on same logic as item 1 for residential I assume). However, for the recreational work the outdoor air to indoor air values remained the same, the groundwater to indoor air values dropped by 50% and the soil vapor to indoor air values dropped similarly to that for the other soil vapor indoor air scenarios. Why did the groundwater to indoor air values drop for the recreator scenario and remain the same for the commercial?

Looking forward to discussing this with the group and clarifying in my mind what is being proposed and why.

Alex

From: MacNicholl, Peter@DTSC [mailto:Peter.MacNicholl@dtsc.ca.gov]

Sent: Monday, June 25, 2018 3:04 PM

To: Fennessy, Christopher (christopher.fennessy@Rocket.com) (christopher.fennessy@Rocket.com)

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Cc: Hanley, Valerie@DTSC <Valerie.Hanley@dtsc.ca.gov>

Subject: Area 40 RAP - Cleanup Standards Table

Hi All,

After discussing the table and its levels with HERO staff, we've inserted revised cleanup goals into the table based on several assumptions:

1. Due to the short-term health effects of TCE and assuming there can be failures in the vapor mitigation system allowing human exposure(s), an attenuation of 100X is not appropriate. FYI DTSC's Engineering Services also does not take the vapor mitigation devices into effect due to the potential failure and resulting exposure routes.
2. Clean-up goals for construction workers were removed as this is a transient exposure scenario. Environmental clean-up goals should be based on the potential future end-use of the land (i.e residential, commercial, etc.)
3. Clean-up goals specific to the recreator were removed. The clean-up goals for the recreational worker will be protective of the recreator; as such a single clean-up value is recommended.
4. The cleanup value for Dioxins/Furans is identified as 6.8 ng/kg and appears to correspond with a health risk of 1×10^{-6} . This value will be used to cleanup the dioxins/furans to unrestricted use levels even though the area will be used as a Park/Open Space and includes those applicable exposure scenarios. No residential level was identified since there is no dioxin/furan contamination in the area proposed for residential development to the north and those areas to the south where no releases occurred. DTSC's HERO staff identified that a cleanup standard of 50 ng/kg is acceptable for residential development and corresponds to the cumulative risk of 1×10^{-5} . HERO is supporting a cleanup goal associated with a theoretical potential cancer risk of 10^{-5} because epidemiological studies have demonstrated that exposure to dioxin-contaminated soil is responsible for only a minimal contribution to the dioxin human body burden which suggest that the value of 10^{-5} is likely a large overestimation of the actual risk.

I'd like to get your feedback at the earliest convenience with the goal of incorporating this table into the RAP but also share with the community to give them piece of mind with the cleanup standards.



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